The opinion in support of the decision being entered today was  $\underline{not}$  written for publication and is  $\underline{not}$  binding precedent of the Board.

Paper No. 12

#### UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

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Ex parte JIM R. DENNEY

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Application 09/226,630

ON BRIEF

Before HAIRSTON, GROSS, and BARRY, <u>Administrative Patent Judges</u>.

HAIRSTON, <u>Administrative Patent Judge</u>.

### DECISION ON APPEAL

This is an appeal from the final rejection of claims 1 through  $8\,.$ 

The disclosed invention relates to a fireset for a low energy exploding foil initiator (LEEFI).

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Claim 1 is the only independent claim on appeal, and it reads as follows:

- 1. A fireset for a low energy exploding foil initiator (LEEFI), the fireset comprising:
- a first capacitor for storing a level of electrical energy sufficient to fire the LEEFI, said first capacitor being in electrical communication with the LEEFI;

second and third capacitors in electrical communication with said first capacitor for storing lesser levels of energy than is stored by said first capacitor;

a diode in electrical communication with said capacitors for limiting charging of said second and third capacitors;

first and second resistors providing isolation among said capacitors;

- a trigger for directing a pulse of electrical energy;
- a high speed switching transistor adapted to receive said pulse of energy from said trigger, to dump said third capacitor;
- a silicon controlled rectifier (SCR) having a gate portion through which said third capacitor dumps, to short a first side of said second capacitor to ground, to decrease the level of energy stored by said second capacitor; and
- a metal oxide semi-conductor field effect transistor (MOSFET) in electrical communication with said second capacitor and adapted to be turned on by energy from said second capacitor;

wherein said second capacitor discharges into a gate portion of said MOSFET to turn on said MOSFET and dump said first capacitor, thereby to fire the LEEFI.

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The references relied on by the examiner in the rejections are:

Swallow et al. (Swallow) 3,750,586 Aug. 7, 1973 Peregrim 5,218,574 June 8, 1993

Claims 1 through 7 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Peregrim.

Claim 8 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Peregrim in view of Swallow.

Reference is made to the brief (paper number 6) and the answer (paper number 8) for the respective positions of the appellant and the examiner.

### OPINION

We have carefully considered the entire record before us, and we will reverse the obviousness rejection of claims 1 through  $8\,.$ 

Appellant has not challenged the examiner's findings

(answer, page 3) concerning the teachings of Peregrim. Appellant
does, however, challenge (brief, pages 7, 10 and 11) the
examiner's conclusion (answer, page 4) that it would have been
obvious to one of ordinary skill in the art to substitute a metal
oxide semiconductor field effect transistor (MOSFET) for the
bipolar transistor 76 disclosed by Peregrim. Appellant argues

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that a basis in the art does not exist for modifying Peregrim to use a single MOSFET in conjunction with a silicon controlled rectifier (SCR) as set forth in claim 1, and that there is a lack of motivation for modifying Peregrim.

We agree with appellant's arguments. The examiner's "common knowledge and common sense" are not acceptable substitutes for evidence in the record to support the examiner's conclusion that it would have been obvious to the skilled artisan to use a MOSFET in lieu of the bipolar transistor in Peregrim. In re Lee, 277 F.3d 1338, 1344-45, 61 USPQ2d 1430, 1434-35 (Fed. Cir. 2002). For this reason, the obviousness rejection of claims 1 through 7 is reversed. The obviousness rejection of claim 8 is reversed because the teachings of Swallow do not cure the noted shortcoming in the teachings of Peregrim.

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# **DECISION**

The decision of the examiner rejecting claims 1 through 8 under 35 U.S.C. \$ 103(a) is reversed.

# REVERSED

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